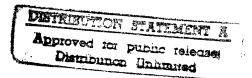


JPRS-TEP-84-014 22 May 1984



## Worldwide Report

**EPIDEMIOLOGY** 

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## 22 May 1984

# WORLDWIDE REPORT EPIDEMIOLOGY

## CONTENTS

### HUMAN DISEASES

BELIZE		
	Two Versions of Dengue Fever Problem Reported (BELIZE SUNDAY TIMES, 8 Apr 84; THE REPORTER, 8 Apr 84)	1
	Over 60 New Cases Believed To Exceed 2,000	
BRAZIL		
	Reported AIDS Cases in Sao Paulo Total 39 (O ESTADO DE SAO PAULO, 25 Mar 84)	2
	Reported Malaria Cases in Rio State in 1984 Total 33 (O GLOBO, 4 Apr 84)	3
EL SAL	VADOR	
	Briefs Increase in Typhoid	4
HONG K	ONG	
	Water Program 'in Chaos'; Health Hazards Abound (Vicky Wong; SOUTH CHINA MORNING POST, 25 Mar 84)	5
	Rise in Malaria, Hepatitis Mars Other Health Successes (HONGKONG STANDARD, 31 Mar 84)	7

## INDIA

Health	(Delhi Domestic Service, 2 May 84)	. :
Briefs	Dysentery Spreads to Assam More Dysentery Deaths Reported	ģ
JORDAN		
Progra	m To Fight Leishmaniasis Discussed (AL-RA'Y, 8 Mar 84)	10
MALAYSIA Briefs	Dengue Fever Contained New Dengue Victims	14
NORWAY		
Immuno	logy Specialist Comments on Outlook for AIDS (Guri Hjeltnes; ARBEIDERBLADET, 2 Apr 84)	15
PEOPLE'S REPU	BLIC OF CHINA	
HBsAg	Carriers, Negative-Conversion Follow-up Study (Hong Deqing, et al.; ZHONGHUA YUFANG YIXUE ZAZHI, No 1, 25 Jan 84)	17
HBsAg 1	Detected From Patients' Fomites (Peng Zhanwen, et al.; ZHONGHUA YUFANG YIXUE ZAZHI, No 1, 25 Jan 84)	18
HB sAg-	Inactivation With Disinfectants Studied (Zhang Fuqiang, et al.; ZHONGHUA YUFANG YIXUE ZAZHI, No 1, 25 Jan 84)	19
	ella in Fish, Shrimp Detected by TT/MM Comparison (Liu Xiangping, Wu Peilin; ZHONGHUA YUFANG YIXUE ZAZHI, No 1, 25 Jan 84)	20
E coli	HBcAG Substitutes for Liver HBcAg in Anti-HBc Assays (Zhu Mingbao, et al.; JIEFANGJUN YIXUE ZAZHI, No 6, 20 Dec 83)	21
SOUTH AFRICA		
Briefs	Flu Vaccine Shortage	22

## THAILAND

	Medical Expert Gives Statistics on Venereal Disease (THE NATION REVIEW, 10 Mar 84)	23
	Babies Threatened by Venereal Disease (BANGKOK POST, 19 Mar 84)	24
UGANDA	•	
	Immunizations Said Adequate in Only 1 of 33 Districts (Edith Simmons; AFRICA NOW, No 35, Mar 84)	25
UNITED	KINGDOM	
	National Health Service Spending To Hit Record Level (David Fletcher; THE DAILY TELEGRAPH, 26 Mar 84)	27
	Briefs Monincitic Outhrook	29
	Meningitis Outbreak	29
ZAMBIA		
	Typhoid: Perennial Disease in Nchelenge Area (TIMES OF ZAMBIA, 17 Apr 84)	30
ZIMBABV	VE Briefs Mount Darwin Cholera Outbreak	32
	Pount Daiwin Gnotera Outbreak	,,
	ANIMAL DISEASES	
BELIZE		
	Briefs Swine Fever Outbreak	33
CHILE		
	BRIEFS Foot and Mouth Disease	34
GUYANA		
	Concern Over Illicit Import of Diseased Animals Expressed (SUNDAY CHRONICLE, 18 Mar 84)	35

LAOS		
	Deficiencies in Livestock Vaccination, Possible Epidemics Noted (PASASON, 4 Apr 84)	36
UNITED	KINGDOM	
	Briefs Fowl Pest Effects	38
	•	
	PLANT DISEASES AND INSECT PESTS	
GUYANA	Briefs Mystery Banana Disease	39
PHILIP	PINES	
	Locusts Threaten To Destroy Crops (Roy C. Sinfuego; BULLETIN TODAY, 27 Apr 84)	40
ZAMBIA	Briefs Locusts Presence Probed	41
	Finches Damage Crops	41

#### TWO VERSIONS OF DENGUE FEVER PROBLEM REPORTED

Over 60 New Cases

Belize City BELIZE SUNDAY TIMES in English 8 Apr 84 pp 1, A

[Text] A total of 80 cases of suspected Dengue Fever have been reported in Belize since the beginning of this year. The Ministry of Health reported last week that blood samples of suspected cases had been sent to Panama and results are expected this week.

In January and February 17 cases were reported from the Corozal District where two patients were hospitalized. Since March 16 in Belize City 63 cases have been reported.

Larvicidal and fogging activities have been stepped up in the past two weeks and the mosquito (Aedes Aegypti) population is considered to be under control.

The Ministry says it is highly unlikely that an outbreak of the size of the 1982 epidemic will occur. At that time, a total of 443 cases were reported all year, 227 of which occurred in the month of July. An extensive community cleanup campaign was needed at that time to control the situation. Since mosquito control activities have been going on since then, there is little risk of an outbreak at this time.

The Ministry is advising the community to continue to support mosquito control activities.

Believed To Exceed 2,000

Belize City THE REPORTER in English 8 Apr 84 p 9

[Text] Daily spraying to control the Aedes Aegypti mosquito began in earnest this week as the evidence of the Dengue outbreak began to amount.

Officially now Medical authorities say there are more than 400 cases of Dengue, but this is viewed as an euphimism and the count is believed to be in excess of 2,000.

REPORTED AIDS CASES IN SAO PAULO TOTAL 39

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 25 Mar 84 p 20

[Text] Acquired Immune Deficiency Syndrome (AIDS) has now killed 20 people in the state of Sao Paulo alone. The Secretariat of Health has recorded, as of last Tuesday, a total of 39 confirmed and 9 suspected cases since the first one was discovered in Brazil. And reports are increasing rapidly: 12 new cases have been confirmed since 1 January of this year. Most of them were in greater Sao Paulo, but there is a growing number of victims in several cities of the interior.

Paulo Roberto Teixeira, director of the Secretariat of Health's Clinical Institute of Dermatology and Leprology, said that the secretariat is concerned over the fact that new cases of AIDS are constantly occurring, "but the most significant thing is that they are cases which originated right here." The first patients were persons who contracted the disease while visiting the United States, the country which tops the list of statistics: about 3,400 cases and approximately 1,500 deaths as of the end of January. The new patients possibly had contact with those persons who returned from the United States, but it is practically impossible to identify them, since the victims of the disease are people with a very active sex life involving many partners.

Another finding by the secretariat: AIDS is now attacking people of all economic levels and no longer just the wealthy, as was the case initially. AIDS, which basically attacks homosexuals, and has thus come to be called "gay cancer," has been contracted by two heterosexuals, a man and a woman. It is likely that both had relations with contaminated homosexuals or with a partner who was a carrier of lymphadenopathy virus (LAV), which has been identified by a medical team of the Pasteur Institute in Paris as being responsible for the disease.

The Secretariat of Health, which conducts a monthly survey of recorded cases in Sao Paulo, has also succeeded in classifying AIDS carriers in the age group ranging from 20 to 49 years old, i.e., the age of people with an active sex life.

"However, there is no treatment for the basic cause of the disease," explained Paulo Roberto Teixeira, who is in charge of the AIDS Prevention Program, which includes diagnosis, monitoring and treatment of the syndrome. According to Teixeira, "although all AIDS patients are carriers of the virus, the cause of the disease is still not definitely known. All doctors can do at present is to treat the diseases which arise as a result of the reduced functioning of the immune system."

11915

#### REPORTED MALARIA CASES IN RIO STATE IN 1984 TOTAL 33

Rio de Janeiro O GLOBO in Portuguese 4 Apr 84 p 9

[Text] Brasilia--As of this past March, the National Superintendency of Public Health Campaigns (SUCAM) has recorded 33 cases of malaria in Rio State this year, all resulting from contact with persons who are natives of Amazonia, the area of the country with the highest incidence of the disease.

SUCAM Superintendent Jose Taquarussu Fiuza said that the recently confirmed cases in Sao Goncalo were not cause for concern because the disease was detected in the beginning, in time for preventive measures to be taken to prevent its spread, measures such as spraying of homes with DDT and collection of blood samples from all of the region's inhabitants.

The superintendent reported that Anopheles Aquasalis mosquitoes, malaria carriers which transmit the disease, are found in the Sao Goncalo region. However, spraying of residences with DDT kills them and prevents the cycle of transmission from being completed. Jose Taquarussu Fiuza stated that as long as there is malaria in Amazonia, persons returning from that area to other regions will always represent a risk of contagion in areas in which the disease is under control.

SUCAM data show that of the country's 69,071 cases of malaria this year, as of March, 27,444 occurred in Para, 19,878 in Rondonia, 5,923 in Maranhao, 4,938 in Roraima, 2,145 in Goias, 2,112 in Acre, 1,791 in Mato Grosso, 1,588 in Amapa and 1,263 in Amazonas. In the same period last year, there were 40,089 cases of malaria in the country.

11915

INCREASE IN TYPHOID—The medical personnel of Rosales Hospital are in a state of emergency because of the epidemic of typhoid fever that has broken out in recent days in the displaced persons camps and marginal areas of San Salvador. Each room in Rosales has a capacity of 15 beds, but because of the emergency, they have been outfitted with up to 40 beds and cots, and even so that is not enough for the number of persons arriving from various places. Dr Jose Max Molina, director of Rosales, told EL DIARIO DE HOY that every year around this time (April/May) there are cases of typhoid fever, but few in number. This year, the number is quite high, to the degree that the doctors on duty during Holy Week devoted the greatest part of their time to attending patients with the fever, some of them very bad, for which they had to be operated. Dr Molina said that typhoid fever has broken out in force in the displaced persons camps and marginal areas because the majority of the inhabitants do not meet the minimum conditions of personal hygiene nor do they wash the fruits and vegetables they buy on the streets. Dr Molina reported that one of the factors contributing to the epidemic is the sale of peeled fruit on the sidewalks, near the gutters and trash piles, without any protection or control. In the Central Market, for example, where there are containers with tons of garbage, less than 1 meter away there are stands selling food, uncovered and with flies everywhere. [Fxcerpt] [San Salvador EL DIARIO DE HOY in Spanish 24 Apr 84 p 3]

WATER PROGRAM 'IN CHAOS'; HEALTH HAZARDS ABOUND

Hong Kong SOUTH CHINA MORNING POST in English 25 Mar 84 pp 1, 9

[Article by Vicky Wong] .

[Text]

Hongkong's safety control programme for drinkable well and stream water is in chaos—apparently because some of those responsible for its implementation have decided not to follow policy decisions.

And even if the programme was running smoothly, the "fire-fighting" measures instituted under it could not guarantee water safety.

In some instances, the water might be made even more hazardous by official methods of disinfection.

As reported in last week's Sunday Morning Post, differing — and baffling — sets of figures have emerged from the Urban Services Department and the New Territories Services Department on the number of wells and streams subject to the Government's disinfection and monitoring programmes.

A clear picture has still not emerged of the real position.

The chaotic situation with the control programme, which affects tens of thousands of people, has resulted from the failure of the NTSD, a unit within the USD, to follow policy decisions laid down by the department.

This policy seeks to ensure a supply of drinkable well and stream water to communities which still have to depend solely on such sources for their daily needs.

According to the USD's hygiene section, it was agreed last summer that only water, sources situated at least 15 minutes walking distance from a government mains water supply should come under the department's disinfection and monitoring programme.

But wells and streams near a government mains supply were to be deleted from the official programme in view of the accessibility of such areas to safe water.

The NTSD, which participated in the formulation of this policy, has not, however, adhered to its terms — and has not advised USD headquarters of this fact.

According to an NTSD spokesman, the unit has been maintaining its own internal lists as to which water sources should come under the programme.

But in the NTSD reports to the USD's hygiene section, which co-ordinates the work done in both the urban and rural areas, only those sources which should come under the official list have been cited.

It is understood that the USD headquarters has now called for a full accounting of where the NTSD has been carrying out its water disinfection and monitoring work.

But even if accurate intradepartmental reporting procedures were to be reestablished, grave questions would remain on just how effective — or safe — the Government's current water safety programme is.

As was earlier reported, wells and streams which provide water for human consumption to areas not served by government supplies are chlorinated daily by USD and NTSD staff.

In addition, users are advised — and taught — to further chlorinate their supplies at home before use.

The objective is to kill potentially-harmful water-iborne bacteria and infectious diseases which may be present in these supplies, some of which are known to be highly-contaminated by faecal pollutants.

Environmental experts believe that such a programme is to be applauded.

But doubts remain over its effectiveness.

Dr D.J.H. Phillips, a senior officer with the Environmental Protection Agency's water quality group, said that the effective use of chlorine as a water disinfectant was a fairly complex business governed by many factors.

For the process to actually have a bacteriacidal effect, it was necessary to produce a level of free residual chlorine in the water.

And the higher the organic matter content in the water which was being disinfected, the more chlorine would be needed to produce this residual effect.

This was because organic matter demanded a certain

amount of chlorine; only after this demand had been satisfied, could free residual chlorine occur in the water.

Dr Phillips said it was basically this free residual chlorine which exerted a bacteria-killing action.

But the effectiveness of the action would depend on how much total residual chlorine there was in the water to be treated, the contact time, and the amount of bacteria present — among other things.

This meant it would be difficult to determine how much chlorine was needed to produce a bacteriacidal action in the absence of extensive

He said that there might be a "good chance" of disease-creating organisms remaining in the water even after chlorination if all of these factors had not been scientifically taken into account.

And if the chlorination process had not been carried through to the point where an effective bacteriacidal action had taken place, the use of such water could pose health hazards.

Dr Phillips said that this risk existed even if the water was boiled, because the temperature produced by normal boiling — 100 C — was not sufficient to kill certain pathogenic bacteria unless it was sustained for a minute or longer. Moreover, sporescould not be killed by any amount of boiling at this temperature.

He declined to give an opinion as to whether the Government's policy of chlorinating wells and streams actually disinfected the water, because he lacked the data which would be needed for a proper evaluation.

However, he agreed that there was a high risk that the chlorination of polluted water could lead to the formation of toxic and cancer-causing chemicals such as trihalomethanes (THMs).

THMs, which are heatstable and do not break down easily, can be formed when chlorine reacts with organic matter in water.

It was this discovery — that THMs and other hazardous compounds can be formed from the chlorination of waste waters — which has led to a worldwide trend away from chlorination and towards ozonation.

Sunday Morning Post investigations show that the Water Supplies Department regularly monitors water from its treatment works for THM contamination.

Last year, 1.39 samples were tested by the Government Laboratory, of which only three were above the limit set by the United States Environmental Protection Agency.

The risk of THM formation in reservoir water — to which chlorine is normally added only as a last step after purification and filtration — is much less than when the disinfectant is added to polluted stream and well water, which tends to have a much higher organic matter content.

However, the Government does not carry out THM tests on well and stream water used for drinking purposes.

Nor does it give any advice on how to minimise the

formation of TBMs or other chemical pollutants which may be present in the water.

It is understood, for instance, that proper filtration of the water before disinfection could greatly reduce the level of chemical pollutants which occur either as a result of or independently of chlorination.

But, as Dr Phillips noted, the health hazards of drinking water contaminated with disease-causing organisms are highly-visible, since widespread sickness and even deaths may result.

On the other hand, the long-term effects of drinking chemically-polluted water are much more difficult to trace and much less-visible.

He pointed out that the Government's policy of chlorination tried to ensure that the water was safer for people to drink.

"That's to be applauded. But the major problem is the introduction of faecal pollution at source and the Government would be advised to do something about this.

"But in my time in Hongkong, I've seen very little change in the quality of streams and wells in the NT; there's been little progress on stopping the pollution from going in at source.

"And that's why they have to do a fire-fighting exercise with chlorination and so on.

"What's required here is for people to be stopped immediately, preferably with the strong arm of the law behind such a move, from discharging wastes into streams. "But the Government has

"But the Government has got to have the will to do it."

#### RISE IN MALARIA, HEPATITIS MARS OTHER HEALTH SUCCESSES

Hong Kong HONGKONG STANDARD in English 31 Mar 84 p 2

[Text]

THE colony has been spared the ravages of communicable distants; caused by parasites, bacteria and viruses which are a major health problem in other parts of the world.

This was stated yesterday by the Deputy Director of Medical and Health Services (Medical), Dr S.F. Lam, at a luncheon meeting of the Hongkong Association of the Pharmaceutical industry.

He said that although improved environmental and nutritional standards had reduced acute diarrhoeal diseases like typhoid, paratyphoid and gastro-intestinal infections, Hongkong was experiencing a resurgence of malaria (a parasitic disease) and hepatitis (a viral disease).

This is without doubt due to

more locals travelling about in Southeast Asia and neighbouring countries," Dr Lam said.

On the curative side, he said, there had been a progressive decline in the proportion of deaths in infancy, childhood and early adult life over the last 50 years.

The greatest number of deaths would now be expected between the age of 70 and 80. This dramatic improvement has led many to inquire whether humans might, under ideal conditions, live to be 100, he said

"In the past 50 years, some changes of importance in the incidence of disease may be related to social changes.

These are: the increase use of

alcohol, addictive drugs and motorcycles by both sexes and of cigarettes by women; increased industrial exposure to asbestos, particularly in men; and a greater number of sexual partners of opposite os the same gender," the deputy director said.

Touching on the effect of smoking on health, Dr Lamesaid avoidance of smoking alone would reduce the mortality from all cancers by about a third.

On diet, Dr Lam said it was still

On diet, Dr Lam said it was still a matter for debate whether the 20th century diet was responsible for certain diseases.

"However, a host of such diseases like gastric and intestinal cancers, coronary heart disease, hypertension, diabetes, diverticulatis, duodenal ulcer and constipation have been attributed to improper diet," he said.

Dr Lam also said the harmful effects of alcohol were much more extensive than disease in the drinker himself as they included injuries inflicted under its influence intentionally or otherwide on others.

"On the other side of the coin, there is now strong if not quite conclusive evidence that a daily pint or two of beer or a few glasses of wine would reduce the risk of death from heart and heart-vessel disease."

"Thus we should aim to reduce heavy drinking and encourage light drinking," Dr Lam said.

HEALTH MINISTER INFORMS PARLIAMENT ON DYSENTERY IN WEST, BENGAL

BK021049 Delhi Domestic Service in English 0830 GMT 2 May 84

[Text] The Lok Sabha was informed today that over 20,700 persons in West Bengal have been affected by the epidemic of bacillary dysentery. Nine hundred and eleven persons have died, according to the information received from the state government. The minister for health, Mr Shankaranand, informed the house that the disease has affected almost all the districts of West Bengal. Mostly children up to 3 years of age have been affected.

According to a medical team of the National Institute of Cholera, people have been affected by the disease because of poor sanitation and acute shortage of drinking water supply. The center has supplied medicines to West Bengal on the state government's request. Mr Shankaranand was replying to a call attention motion by Mr (Bhajmohan Mohanti), Congress-I, and others on the reported increase in the cases of several epidemics including smallpox, kala-azar, gastroenteritis, malaria, and viral jaundice in various parts of the country.

Mr Shankaranand categorically stated that there has not been a single case of smallpox, which had been eradicated totally in 1975. The minister told the house that in Gujarat over 2,500 cases of viral hepatitis have been reported with 314 deaths. The Gujarat Government has been permitted to import the vaccine for control of the disease. The minister also gave figures of malaria cases, which were over 47,000 between January and March this year. Incidents of monkey fever in Karnataka affected 805 persons; 139 of them died. During the discussion, members expressed concern over the magnitude of the epidemic in West Bengal and expressed the fear that it may spread to neighboring states. An opposition member alleged that no preventive steps have been taken by the government in regard to the diseases.

DYSENTERY SPREADS TO ASSAM--New Delhi, May 5 (AFP)--Bacillary dysentery, which has killed 1,224 people in West Bengal State, has now spread to neighbouring Assam, where 34 people have died of it in the past two weeks, PRESS TRUST OF INDIA news agency said today. Unofficial reports, however, put the death toll in Assam at over 50. Over 32,000 people have been struck by the disease since its outbreak in West Bengal last March, the agency said. [Text] [BK051434 Hong Kong AFP in English 1313 GMT 5 May 84]

MORE DYSENTERY DEATHS REPORTED—New Delhi, May 6 (AFP)—Bacillary dysentery claimed 54 more lives in India's West Bengal State during the past 24 hours, taking the death toll to 1,399 since the disease broke out in early March, PRESS TRUST OF INDIA reported today. The agency quoted the state health minister, Ambarish Mukherjee, as saying in Calcutta, the state capital, the the total number of people affected rose to 38,329, against 35,925 yesterday. Meanwhile, PTI reports from Gauhati, capital of northeastern state of Assam, said dysentery and gastroenteritis had claimed 47 lives and affected over 2,500 people in the state dueing the past three weeks. Unconfirmed reports, however, put the toll at 60 and over 4,000 suffering from the diseases which have broken out in epidemic form in some districts of the state, the agency added. [Text] [BK051556 Hong Kong AFP in English 1451 GMT 6 May 84]

PROGRAM TO FIGHT LEISHMANIASIS DISCUSSED

Amman AL-RA'Y in Arabic 8 Mar 84 p 8

[Article: "The Head of the Malaria Department in the Ministry of Health Maintains: No Recorded Cases of Leishmaniasis Since the Beginning of the Year; Plan To Fight the Disease and Exterminate Carrying Insect Prepared"]

[Text] Dr Muhammad Rida Tawfiq, the Head of the Malaria and Bilharzia Department, announced that since 1 January 1984 and until now, no cases of the disease leishmaniasis appeared in the kingdom. Dr Muhammad Rida said that, following the recommendation of the committee in charge of studying and laying out a plan of action to fight leishmaniasis in Jordan—a committee made up of Dr Muhammad Rida Tawfiq, Head of the Malaria Department; Dr Muhammad Mahmud Nabata of the Directorate of Planning, Training, and Research; and Dr Muhammad 'Abd—al—Rahim Jalal of the Division of Contagious Diseases—a plan to fight the disease was laid out.

The plan mentioned that until 1982, leishmaniasis cases used to appear individually and in a scattered manner in different areas of Jordan, especially in al-Aghwar al-Wusta, where dermatologists diagnosed them clinically and reported them as soon as they appeared; the cases were small in number and mostly dermatological. As for the disease-carrying insect (the sand fly), members of the Malaria and Bilharzia Department used to sight it in the Jordan valley in low density due to the annual D.D.T. spraying for the Anopheles Mosquitoes. D.D.T. has an accumulative effect which proved effective in exterminating the sand fly without any sign of resistance.

At the end of 1982 and the beginning of 1983, cases of that disease appeared in epidemic proportions in the territories east of the capital, where some 300 cases were reported in the villages of al-Muwaqqar, Sahab, al-Qatranah, al-Halabat, and al-Ghawr al-Awsat. The Ministry of Health treated all those cases. The Malaria and Bilharzia Department, also made an entomological survey of the areas where the sand fly abounds. The insect was exterminated with insecticides, nd the entomological studies and spraying continues on schedule. The Jordanian University also collected a small sampling of rats and examined them; some of the rats were found to carry the leishmaniasis parasite. The study, however, overlooked other vector animals such as dogs, cats, and other rodents.

In December 1983, 20 cases were discovered among the members of the armed forces stationed in al-Aghwar al-Wusta so the Malaria and Bilharzia Department sprayed the camps and public safety centers, and the patients were treated by the director of the Balqa' Health Department, a dermatologist. In January 1984, members of the epidemiology evaluation [section] in the Malaria and Bilharzia Department made an epidemiologic survey among the population of al-Aghwar al-Wusta, with 21 suspect cases uncovered. The Director of the Balqa' Health Department was notified to check these cases and to diagnose and treat them if they were confirmed.

The Objectives of the Plan

The objectives of the plan may be summarized as follows:

First, to eliminate leishmaniasis by diagnosing and treating all cases, and conducting the necessary epidemiological investigative studies required to discover the new cases of the epidemic.

Second, to exterminate the carrying insect, the sand fly, in all the places in which it lives and multiplies, and to conduct the entomological investigations required to find it.

Third, to identify the animals which are vectors for leishmaniasis, to determine the percentage of cases in these animals, and to exterminate these animals.

The Administrative Framework of the Plan

the control of the co

To form a permanent technical committee (called "the Leishmaniasis Disease Fighting Committee") from the cadres of the Ministry of Health and representatives from the Ministry of Agriculture, the Ministry of Municipal, and Rural and Environmental Affairs, the Ministry of the Interior, and the Secretariat of the Capital. The Jordan Valley Authority is responsible for conducting the necessary studies and counteractions in all their aspects.

The committee shall consult and seek the assistance of any other technical authority—such as the Royal Medical Services, the Jordanian University, the Royal Scientific Society, and the World Health Organization—if such assistance is needed in studying and fighting the disease.

The Duties of the Technical Committee

To conduct a negative and positive epidemiological survey in all the areas suspected of having cases—the places which had previous cases or any other areas if deemed necessary.

To commission the directors of health departments to ensure all the means needed to diagnose, treat, and follow up on the disease, and to report the cases immediately, each in his own district; to ensure the technical cadres and the funds needed to conduct epidemiological studies among the population; and to analyze the results in the light of the available statistics and to make the

necessary recommendations. Also, to commission the Malaria and Bilharzia Department to conduct entomological investigations of the sand fly in the areas where it lives and multiplies all year round, and to undertake insecticide spraying operations -- it is noteworthy that this department has compiled an integrated entomological study of the sand fly, and is currently engaged in spraying the areas in which it appears. To conduct an integrated study aimed at identifying the animals which are vectors of leishmaniasis (dogs, cats, rats, and other rodents such as jerboas) in the kingdom, to determine the percentage of affliction among them and the places in which they live, and to To conduct a study to determine the kinds of parasite which exterminate them. cause the disease in man and animal, and to supervise and follow up on the disease fighting operations in all their stages; to seek the assistance of the experts of the World Health Organization if need be, and to hold regular meetings to follow up on the disease fighting operations and to ensure the medications, insecticides, and poisons used in fighting operations.

#### Distribution of Responsibilities

The Ministry of Health, represented by dermatologists all through the kingdom, undertakes the responsibility of diagnosing, treating, following up, and reporting the disease cases; of isolating the leishmaniasis parasite and determining its kind; of ensuring the necessary treatment and diagnosis facilities (laboratories); of conducting epidemiological studies among the population by seeking the assistance of Public Health doctors, health inspectors stationed in the health departments throughout the kingdom, and dermatologists; of training the doctors of the medical centers in the methods of diagnosing, treating, and reporting the disease, and referring the difficult cases to dermatologists; of conducting entomological investigations on the sand fly all through the kingdom, provided that this department be supplemented with four entomologists from among the graduates of the College of Biological Sciences; and of exterminating the sand fly.

The Ministry of Agriculture, represented by the Department of Veterinary Medicine and Animal Health, assumes the responsibility of conducting the studies needed to identify the vector animals (dogs, cats, rats, and other rodents), and to determine the afflicted percentage, their location and origin; of exterminating stray cats and dogs in the areas where there are no municipalities or village councils. The municipalities and village councils are responsible for exterminating stray cats and dogs, rats, and other rodents, each in its own area; for disposing of litter and refuse in sanitary ways; and for eradicating abandoned places where these animals live. The Secretariat of the Capital is in charge of exterminating rats and other rodents in the capital and other areas where there are no municipalities or village councils; of requesting the Ministry of the Interior to ensure the cooperation of Public Safety men, governors, and district officers with the disease-fighting squads, which carry out different functions, and to facilitate their mission; of asking the Jordan Valley Authority to cooperate with the disease-fighting squads in the valley area; and of requesting the Armed Forces to cooperate with the disease-fighting and medical squads, and to report the cases which afflict its members.

The Term of the Plan

Three years to complete the epidemiological investigative study among the population, the entomological investigations, the examination of the vector animals and the parasite, the overall disease-fighting plan, and the evaluation of all the activities.

It is noteworthy that the Ministry of Health has become alert to this disease and formed, in coordination with the concerned ministries and the Department of Royal Medical Services and the Jordanian University, a supreme advisory committee representing all institutions, along with subcommittees to study this disease and to take effective scientific measures, starting 5 March 1983.

In the first 4 months of 1983, 90 percent of all leishmaniasis cases in the kingdom were discovered, and all of which were treated.

The Entomology Division of the Malaria and Bilharzia Department undertook an entomological study of the transmitter of this disease, which is the sand fly; henceforth, all the areas in the kingdom, in which this kind of fly abound; were sprayed in cooperation with the Department of Environmental Health in the Ministry of Health.

The Jordanian University conducted studies on the vector of the microbe of this disease among some rodents and stray animals.

12566

DENGUE FEVER CONTAINED--KUCHING--Dengue fever seems to be on the decline in Kuching following a full-scale spraying campaign. But the deadly mosquito-transmitted disease is still causing problems in the rest of Sarawak and Sabah. Seven new cases have been reported this week in Sarawak bringing the total this year to 374 cases and eight more cases were discovered in Sabah at the end of last month. In Kuching, after a handful of cases in the last half of March, there were none at all last week. [Text] [Kuching THE BORNEO POST in English 7 Apr 84 p 4]

NEW DENGUE VICTIMS--KUCHING, Tues.--Four more suspected dengue fever cases were reported in Sarawak today bringing the number of cases this year to 391. A medical and health services spokesman today said that three of them were from Marudi in the Fourth Division. They were a 33-year-old woman from Kampung Cina, a 29-year-old man from Long Lama and a 25-year-old man from Kampung Narun. They have been admitted to the district hospital. A 17-year-old youth from Sibu was also admitted to the Lau King Howe hospital. The number of confirmed dengue fever cases stands at 21. [Text] [Kuching THE BORNEO POST in English 11 Apr 84 p 2]

IMMUNOLOGY SPECIALIST COMMENTS ON OUTLOOK FOR AIDS

Oslo ARBEIDERBLADET in Norwegian 2 Apr 84 p 10

[Article by Guri Hjeltnes: "More AIDS Cases Anticipated in Norway"]

[Text] We know of two definite cases of AIDS in Norway, and both people are dead. Approximately 15 or 10 people are being observed closely in this country. They are being examined systematically for vague symptons of AIDS.

"We must face the fact that Norway is going to have a good many more cases of AIDS in the future. We have a flat curve that is going to become steeper. But we will scarcely get as explosive a development as in the United States," Dr Stig Froland, a specialist in infectious diseases and immunology at the Rikshospital in Oslo, has told ARBEIDERBLADET. On Friday it was reported that two men were undergoing regular checking in the medical section of the Haukeland Hospital in Bergen because it was suspected that they were infected with the fatal AIDS disease. One of the ways in which AIDS is transmitted is through sexual intercourse and it strikes homosexual men, in particular.

#### Norway Behind

Is Norway well enough prepared to treat men suffering from AIDS?" Stig Froland was asked.

"Yes, he replied, "we have had time to become well prepared. Norway is behind large parts of the world in the frequency of outbreaks of AIDS. We have been able to learn from the experience of others and from the way they organize their assistance. The level of information among Norwegian personnel working in the health field has been improved considerably where AIDS is concerned. That is a very important factor. Health personnel now know that AIDS can be detected, and we have worked out procedures for care and the taking of blood samples. I myself am a member of a working group that is concerned with procedures and precautions that are to be taken in cases where AIDS is suspected or definitely exists."

Important to Distinguish

"What are the symptoms?" Dr Froland was asked:

"It is important to distinguish between cases where AIDS definitely exists and vague preliminary stages. We have quite clearly defined procedures for the

diagnosis of AIDS as a disease that definitely exists. The problems are found in the preliminary stages—the so-called 'pre-AIDS'—which can consist of swollen lymph glands, fever, loss of weight and diarrhea that can last for weeks, months or years. Such symptoms can also be caused by something else. It can be 'pre-AIDS' or it can be something else. Therefore it is of crucial importance to monitor the patient closely.

"In Norway, we only know of two definite cases of AIDS, and both of those individuals are now dead. In all, we are monitoring 15 or 20 men in Norway who have such vague symptoms.

#### Cannot Arrest

"Is there any certain test for AIDS?" Dr Froland was asked.

"No, there is nothing that is absolutely certain at the present stage," he replied.

"Can there be many more in Norway than the 15 or 20 people you mentioned?" he was asked.

"Some others are probably circulating," he answered. "The group at risk consists of homosexual men, and they are all well informed. They are extremely interested in getting themselves examined quickly and in getting into contact with doctors. Here in East Norway a great deal of assistance is available. We have had a specialized clinic since September 1983 at the Oslo Board of Health that takes care of patients and puts them through organized examinations in cooperation with Ulleval and the Rikshospital. One can also get help outside of Oslo.

"Internationally speaking, can a definite case of AIDS be arrested?" he asked.

"No, we have not achieved a breakthrough in treatment. The outcome in a definite case of AIDS is either infections or a definite cancer, or both. Internationally, 40 percent of the people who have been registered as suffering from AIDS are now dead. If the illness lasts three or four years, 100 percent of the patients die," Froland told ARBEIDERBLADET.

#### Information

"We have concentrated rather heavily on information regarding AIDS," says Kim Friele of the Confederation of 48. "We have printed a small, intelligible brochure that has been distributed to all organized and unorganized groups of homosexuals. Furthermore, we have set up a special health commission for homosexuals on which all Norwegian homosexual groups are represented. That commission has prepared an even bigger and better brochure. Furthermore, the Confederation has sent health personnel to the United States to learn what they can and keep themselves oriented, and out to the regions in Norway. Up to the present, the Confederation has invested nearly 70,000 or 80,000 kroner in this work. We take AIDS seriously," Kim Friele told ARBEIDERBLADET.

9266

#### HBSAG CARRIERS, NEGATIVE-CONVERSION FOLLOW-UP STUDY

Beijing ZHONGHUA YUFANG YIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 1, 25 Jan 84 pp 32-34

[Article by Hong Deqing [3163 1795 1987], Li Jianshu [2621 1696 2885] and Zhou Ling [0719 3781], et al., all of the Faculty of Epidemiology, Nanjing Medical College, Nanjing: "A Follow-up Study on HBsAg Carriers and Factors Influencing Negative-conversion"]

[Summary] A follow-up observation of 190 HBsAg carriers was carried out over a 28 month period. The total negative-conversion rate was 27.9 percent, with no significant age or sex difference. The HBsAg negative-conversion rate decreased with increases of the HBsAg titre. The negative-conversion rate was found to be 42.7 percent for subjects with titres  $\leq 1:128$  and 14.9 percent for those with titres  $\geq 1:256$ . HBeAg negative subjects had a conversion rate of 38.6 percent, compared to 6.3 percent for those with positive HBeAg. Of the 63 who had been HBeAg positive, 54 became negative after 28 months, with the conversion rate being 85.7 percent. HBsAg titres decreased with HBeAg negative-conversion.

#### HBSAG DETECTED FROM PATIENTS' FOMITES

Beijing ZHONGHUA YUFANG YIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 1, 25 Jan 84 pp 30-31

[Article by Peng Zhanwen [1756 1455 2429], Du Yunxiang [2629 0061 4382], Xie Cifen [6200 1964 5358] and Li Yubao [2621 3768 0202], all of the Epidemic Prevention Brigade, Department of Health, General Logistics Department, PLA: "Detection of HBsAg from Fomites of Hepatitis B Patients"]

[Summary] In order to study the route of HBV transmission, the following materials were examined for HBsAg with SPRIA. HBsAg was found to be positive in 21/159 (13.2 percent) samples collected from desk, chair and hairdressing articles of the hepatitis patients, 13/87 (14.9 percent) from coins and banknotes of hepatitis B cases, 10/84 (11.9 percent) from Chinese currency belonging to the hospital staff and 20/187 (10.7 percent) from the general community. Fifty-eight positive samples were still found to be HBsAg positive after storage in the refrigerator for three to four months. The results showed that not only were the fomites of hepatitis B patients contaminated, but also coins and banknotes were contaminated, showing a possible source of HBV transmission.

#### HBSAG INACTIVATION WITH DISINFECTANTS STUDIED

Beijing ZHONGHUA YUFANG YIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 1, 25 Jan 84 pp 10-12

[Article by Zhang Fuqiang [1728 4395 1730], Wu Zhenqiang [0702 2182 1730] and Li Bopeng [2621 0130 7720], et al., all of the Department of Epidemiology, Guangdong Medical and Pharmaceutical College, Guangzhou: "Study of Inactivation of Hepatitis B Surface Antigen (HBsAg) with Different Disinfectants"]

[Summary] The HBsAg inactivation effects of the 23 common disinfectants were studied. Three methods—CIEP, RPHA and ELISA—were used for examination of HBsAg. Reaction times were 5, 15 and 30 minutes.

The results showed that HBsAg could be inactivated by 3 percent calcium hypochlorite lime, 3 percent calcium hypochlorite, 3 percent chloramine T, 3000 ppm sodium hypochlorite, 1 percent tincture of iodine, 5 percent formaldehyde, 2 percent gluteraldehyde, 0.5 percent peracetic acid, 20 percent hydrogen peroxide and 8 percent formaldehyde in ethanol for 15 minutes at 25°C. These 10 disinfectants were highly effective agents for the inactivation of HBsAg. However, phenolics, lysol, surfactants, hibitance, calcium oxide, potassium permanganate, sodium hydroxide and hydrochloric acid had little or no inactivation effect. These results may be used in viral hepatitis disinfection practice.

#### SALMONELLA IN FISH, SHRIMP DETECTED BY TT/MM COMPARISON

Beijing ZHONGHUA YUFANG YIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 1, 25 Jan 84 pp 45-46

[Article by Liu Xiangping [0491 3276 1627] and Wu Peilin [0702 0160 3829], both of the Anti-epidemic Station of Xinyang Prefecture, Henan: "Comparison of TT to MM for Detecting Salmonella in Fish and Shrimp"]

[Summary] A total of 84 salmonella strains were isolated from 692 samples of fish, shrimp and turtles, etc., with both TT and MM. These strains have been classified into seven serogroups, belonging to nine serotypes. Two of them are rare in China. One of them is a new serotype of salmonella, designated tentatively as S. xinyang. Fifty strains distributed in seven serotypes were isolated in the TT, of which one is rare in China; while 74 strains were isolated in the MM, belonging to 9 serotypes, 2 of which are rare in China and 1 of which is a new serotype of salmonella. The results showed that for detection of salmonella in fish and shrimp, the MM medium is better than the TT one.

9717

E COLI HBCAG SUBSTITUTES FOR LIVER HBCAG IN ANTI-HBC ASSAYS

Beijing JIEFANGJUN YIXUE ZAZHI [MEDICAL JOURNAL OF CHINESE PEOPLE'S LIBERATION ARMY] in Chinese No 6, 20 Dec 83 p 413

[Article by Zhu Mingbao [2612 2494 1405], Zhang Xitan [1728 5045 0982] and Ma Jing [7456 7234], all of the Microbiology and Epidemiology Research Institute, Academy of Military Medical Sciences, PLA: "Use of Hepatitis B Core Antigen Synthesized in E. coli in Assays of Anti-hepatitis B Core Antibody"]

[Summary] Results of enzyme-linked immunosorbant assays for anti-HBc antibodies using hepatitis B virus core antigen synthesized in E coli were compared with those using antigen derived from human liver. They were shown to have the same serological specificity, but concentration of the antigen from the E coli preparation was lower than that from the liver.

Results of parallel ELISA of 36 serum samples from individuals of different anti-HBc status using E coli HBcAg and liver HBcAg showed a 91.7 percent agreement for the two antigens. It may, therefore, be concluded that E coli HBcAg can be used to replace liver HBcAg in assays for anti-HBc and has practical value in the diagnosis of hepatitis because of its ready availability.

9717

FLU VACCINE SHORTAGE—SOUTH Africa—poised on the threshold of an expected severe winter—is facing a critical shortage of Influenza vaccine. It was learnt in Pretoria yesterday that supplies are "critically short"—and that as a result sensitive or people in poor health could face severe consequences. The problem, according to doctors, is that only two of five pharmaceutical firms which previously imported the necessary vaccine have been doing so this year for financial and other reasons. People at risk medically are sensitive, aged, heart sufferers, cancer, kidney and diabetes sufferers. People who are

particularly at risk were warned earlier this year to make sure of getting their "shots", but cases have already been reported of people who have been hardhit. According to the State department of health, main flue vaccines deemed necessary for the 1984 winter season were "A" Philippine, "A" Brazil and "B" Singapore. However, it was pointed out that these three vaccines did not give absolute protection as there was often a variation in the virus each season which became immune to vaccine. [Text] [Johannesburg THE CITIZEN in English 4 May 84 p 17]

#### MEDICAL EXPERT GIVES STATISTICS ON VENEREAL DISEASE

Bangkok THE NATION REVIEW in English 10 Mar 84 p 5

[Text]

A MEDICAL expert estimated yesterday that venereal disease, affecting about 35 out of every 1,000 Thais above 15 years of age, costs the country at least 1,000 million baht annually.

The record at the Public Health Ministry shows that seven out of every 1,000 Thais officially applied for medical treatment of the disease but Dr Niwat Polnikorn of the Faculty of Medical Science, Mahidol University, said the actual figure could be at least five times higher.

Dr Niwat, an expert in skin and sexual communicable diseases, gave the frightening statistic to an audience in a two-day seminar on the problem of white slavery at the Ministry of University Affairs which ended yesterday.

He said expenditures on medicine at the Venereal Disease Division last year went up to 40 million baht, not including related costs for the treatment such as personnel.

#### TREATMENT

Venereal disease needs at least three days for medical treatment and the unseen cost of wasted time is abundant, he said, adding: "This does not include the damage suffered by certain patients who lose certain organs of their bodies."

Dr Niwat said 80 he said, adding that percent of veneral disease patients are between 20 and 30 years he said, adding that most prostitutes are given an injection of an antibiotic known

old and one-fourth of them are labourers who cannot afford medical treatment.

Labourers, particularly those in the provinces, like to gather and drink in the evenings after enjoying themselves at brothels, where they contract the disease; he said.

He added that the second largest number of VD patients include junior government officials, teenagers and students, particularly freshmen in universities.

On the prostitutes' side, Dr Niwat said 80 per cent of "service girls" who suffer venereal disease have not received proper and correct medical treatment.

Many of them buy medicine for themselves or are treated by unlicensed doctors, he said, adding that most prostitutes are given an injection of an antibiotic known as Kanamycin when they suffer from venereal disease.

Each shot of Kanamycin costs about 50-60 baht but the anti-biotic is hazardous to the health, particularly to the kidneys and hearing, he said.

#### BABIES THREATENED BY VENEREAL DISEASE

Bangkok BANGKOK POST in English 19 Mar 84 p 3

[Text]

INSUFFICIENT venereal disease treatment facilities and "self-service" cures are posing a serious threat to future generations, the Bangkok Post was told yesterday.

VD specialist Dr Nivat Polnikorn said there were only 33 specialists covering 72 provinces to cope with about 200 patients daily in five hours.

Of the country's seven medical schools, only two provided standardised training and knowledge.

The Mahidol University assistant professorsaid the Ministry of Public Health's budget has been increased by 10 percent each year to 40 million baht on medicine alone last year.

But in areas where there were no ministry facilities, people had little choice but to turn to private VD clinics, which charged patients at least 400 baht in doctors' fees.

"The high cost involves laboratory tests to thoroughly study the types of disease," he said.

Judging from the cost, only those who could afford it would be able to have treatment. Low income earners and students would not be able to have proper treatment, he said.

The practice of visiting the nearest drug store for a cure was still widely practiced and dangerous, he said. Inadequate treatment posed a real risk of babies being born mentally retarded.

Making the problem worse, said Dr Nivat, was public ignorance and the stigma attached to VD. Most of his male patients told him they preferred not to use condoms because they were regarded as inferior.

Men were most often irresponsible. "When they are asked to bring their wives for a cure after they are found with VD, often they do not tell their wives," he said.

#### **STATISTICS**

Statistics have shown that almost 100 per cent of the male patients contracted VD from prostitutes. As prostitution is not legalised and doctors could not go round knocking on doors to provide treatment, the problem remained.

While there were public health facilities in the city, he said, prostitutes rested during office

hours. To cure their infection, they normally took an antibiotic called Kanamycin which could cause hearing and kidney malfunctions.

Normally, they are given two grammes of Kanamycin at a time, but as they have to work almost every day and if their pain or infections haven't disappeared, they will be repeatedly injected.

Lesbianism posed little risk of VD since homosexual women tended not to swop partners, but male homosexuals faced a threat from viral hepatitis, said the professor.

Hepatitis was usually passed on in saliva and heavy cases can kill. As homosexuality became more socially acceptable, cases of hepatitis would inevitably become more common.

Dr Nivat said the symptoms were low fever, yellowish eyes, weakness and loss of appetite and weight.

#### MIGRATION :

Apart from the ministry's boosted budget, little was

being done to combat the problem, which was being aggravated by rural migration to the cities, he said.

The most common forms of VD in Thailand currently are gonorrhoea, syphillis and herpes. About 60 per cent of mothers with herpes gave a death birth, while the other types cause deformities.

#### IMMUNIZATIONS SAID ADEQUATE IN ONLY 1 OF 33 DISTRICTS

London AFRICA NOW in English No 35, Mar 84 p 18

[Article by Edith Simmons: "Under the Muvule Tree"]

[Text]

This was no ordinary day in Buteza, a small community of agriculturists nestling in fertile land at the foot of Mount Elgon in Eastern Uganda. Under the cool shadow of a muvule tree next to the sub-dispensary, young mothers dressed up in their best and colourful busun and holding their babies, listen attentively to the midwife/health worker talk about the benefits of immunising all children under five against measles, whooping cough, polio, tuberculosis, diphtheria and tetanus.

Other mothers, with more babies strapped securely on their backs and toddlers reluctantly trailing behind, sit on the grass as there is no room left under the muvule tree. Many have walked up to five kilometres to reach Buteza sub-dispensary, but neither the distance nor the already intense heat of the dry season could prevent them from attending the immunisation

All the vaccines supplied by UNICEF have been unwrapped and both vials and syringes have been lined up carefully on the wooden table inside the sub-dispensary. All children are weighed first and their weight recorded on their progress card which remains the property of the mother. Toddlers who have already received their first or second jab do not appreciate the experience and start crying and fretting, but the new babies carry on taking the breast or just look content and sleepy. Even the chief, Livingstone Namoma, nods approvingly as the chorus of wailing babies and toddlers fills the little room. By mid-afternoon everything is quiet again and 65 vaccinated children are on their way home.

Butezá sub-dispensary is part of a network of 24 sub-dispensaries, five dispensaries and four health centres in Mbale District which provide immunisation for approximately 120,000 children living in this area. Started in January 1983 with the cooperation of the Save the Children Fund,
85% of all children between 0-5 years have
already received one of their jabs, and 30%
have completed their course. The tears and
the fear of a needle is a little price to pay
compared to the tragedy of the previous
years when the dry season and the hot wind
carried the measles virus from hut to hut
claiming countless young lives. According
to the District Medical Officer, the death
rate of children admitted at Mbale District
Hospital reached 75% and parents began to
lose confidence in the doctors. The impact
of the immunisation programme has been
so effective that eight months later, in
August 1983, no incidence of measles had
been reported or at least recorded.

Whilst immunisation is progressing successfully in Mbale District, the situation in the other 32 districts of Uganda remains grossly inadequate. Reports from 24 Ugandan hospitals indicate that 28.5% of deaths of all ages in 1981 were attributable to measles, reaching a peak at Mulago Hospital in Kampala where 46% of mortality in the paediatric ward is caused by measles.

Over a decade of neglect culminating in the Liberation War in 1979, has brought down the progress of the 1960s and early 1970s when, for example, an estimated 70% of children under 14 years of age were vaccinated in a nationwide BCG campaign in 1973. By contrast 1980 revealed that BCG coverage had dropped to 1% and it is currently estimated that less than 10% of the 0-2 year age group has been covered for measles and BCG; DPT and polio coverage has remained under 5%.

The success of Mbale District Immunisation Programme acts as the pilot-study for a nationwide or Expanded Programme of Immunisation (EPI) which UNICEF/SCF/

UNCDF and WHO are assisting the government, through the Health Ministry, to implement. The total project cost is estimated at approximately \$9m and aims at providing immunisation for 80% of the 0-1 year age group by the end of 1986 and all by 1990. Older children not previously protected will also be vaccinated and tetanus injection will be provided to women of child-bearing age.

The potential for implementing a comprehensive immunisation service is high. For example, more than 50% of Uganda's population live within 10km. of a hospital or health centre/dispensary unit. Staff are well trained and enthusiastic and the parents are keen to have their children immunised.

Before this wide-scale immunisation programme can be put into operation, major problems have to be overcome such as the rehabilitation of many health centres badly damaged during the Liberation War and the establishment of an efficient and reliable cold chain; kerosene is very expensive and one solar cold chain technician is being recruited to supervise the feasibility of solar vaccine stores and to train equipment maintenance unit staff.

The capacity for on-going supervision and monitoring of the immunisation programme plays a strategic role in the efficient running of a long-term immunisation campaign and the preparation and design of up-to-date training materials for use in each district is a prerequisite of the whole success

of the campaign.

The task is enormous but the expertise of all agencies and the commitment of the Ministry of Health remain the most positive factors for getting the Uganda Expanded Programme of Immunisation to reach its target •

#### NATIONAL HEALTH SERVICE SPENDING TO HIT RECORD LEVEL

London THE DAILY TELEGRAPH in English 26 Mar 84 p 8

[Article by David Fletcher]

[Text] National Health Service spending will reach a record total this year of £17 billion, or £303 for every man, woman and child in the country, the Office of Health Economics states in a report today.

Even when adjusted for inflation, the figure represents a threefold growth in NHS spending over the total spent in 1949. And increases in manpower are shown as one of the main causes of rising expenditure.

In 1951 there were 348 nurses per 1,000 hospital beds, but by 1982 the figure had trebled to the point where there were more nurses than beds.

Although more money is being spent on the Health Service, the proportion of the gross national product devoted to health care is falling slightly.

The NHS now absorbs 6.2 percent of gross national product compared with 6.3 percent in 1981, a proportion far lower than that of most other Western nations.

Sweden and America spend nearly 10 percent of gross national product on health care with the result that the cash outlay is three times that available to the NHS.

The report says that countries such as Denmark and Norway are now spending twice as much per head of population on health care than does the NHS.

#### Private Increases

Spending on private health care reached £1,200 million in Britain in 1982, a rise of 20 percent in 10 years, a growth rate almost equal to that of the NHS.

By contrast, the growth in spending on the NHS has slowed in recent years. The growth in real terms has dropped to one percent a year in the last three years compared with an annual growth of 4 percent from the mid-1950s to 1974.

There were marked disparities in the amount spent on health care in different parts of Britain. Scotland in particular recorded substantially above average growth with spending increasing by one-third between 1974-75 and 1981-82 compared with a rise of 17 percent for the United Kingdom as a whole.

The report says that despite recent increases in the provision of resources to poorer regions, the Midlands and Northern England continued to report health spending per head to be well below the national average.

#### Overseas Doctors

By contrast the spending on the four London health regions was 20 percent higher per head than the rest of the country.

More than 43,000 doctors now work in NHS hospitals, compared with 30,000 in 1972. Nearly one-third of hospital medical staff were recruited from abroad "indicating the country's considerable and continuing reliance on overseas doctors."

The Office of Health Economics is financed by the pharmaceutical industry to research the economic aspects of health care.

"Compendium of Health Statistics," Office of Health Economics, 12 Whitehall, London SWIA 2DY, £15.

cso: 5400/7561

MENINGITIS OUTBREAK--An outbreak of meningitis among school children and young people in Gloucestershire is to be investigated by the Government's Communicable Diseases Centre. A total of 23 cases have been reported in the country in the past two years. [Text] [London THE DAILY TELEGRAPH in English 22 Mar 84 p 2]

TYPHOID: PERENNIAL DISEASE IN NCHELENGE AREA

Lusaka TIMES OF ZAMBIA in English 17 Apr 84 p 1

[Text] TYPHOID has broken out at Nchelenge Secondary School in Luapula Province where at least four students have been hospitalised and all students quarantined, Luapula Province medical chief Dr John Mbomena confirmed in Mansa yesterday.

Dr Mbomena said the rest of students who were at the school had been quarantined to stop the water-borne killer disease from spreading. School authorities had been ordered to improve sanitation or face closure.

He had visited the school and found that general sanitation, the dining hall and drinking water needed to be improved.

Dr Mbomena had visited St Paul's Hospital where three boys and a girl had been admitted by last Wednesday.

"We have confined the remaining students to the school for two weeks so that the disease does not spread to other areas."

He denied reports that villagers had been hospitalised for the same disease.

"We have given the school some advice on how to improve the conditions at the school. The dining hall is not conducive to a good eating atmosphere."

If the conditions were not improved, the school would not be opened when the rest of the students reported back for the second term next month.

Dr Mbomena conceded that typhoid was a perennial disease in the Nchelenge area.

In 1981 four Grade 12 school-leavers at Lwamfumu National Service camp in Mansa died from typhoid which had hit the camp.

Two hundred and twenty others were admitted to hospitals in Lusaka, Northern, Luapula and Copperbelt provinces.

The outbreak led to the eventual closure of the ZNS camp by the Government.

The disease later spread to Mable Shaw Secondary School in Kawambwa and Luanshya on the Copperbelt.

Former minister of Health Mr Rajah Kunda and now Minister of Higher Education told Parliament at the time that five proved cases of typhoid had occurred and 20 others were suspected at Mable Shaw which is 168 km from Mansa.

As a result of the outbreak more than 400 recruits deserted Lwamfumu and 21 were later hospitalised at Konkola Mine Hospital in Chililabombwe.

#### Reports

--Southern Province permanent secretary Mr Pensulo Phiri said in Livingstone yesterday beer drinking, sex, stealing and dagga smoking have become the life style at colleges and secondary schools in the province.

The widespread reports his office was receiving on gross indiscipline in institutions were worrying the Party and its Government.

Barbara Barbara Barbara

Speaking at a Press conference in his office Mr Phiri appealed to the Parent-Teachers Associations (PTAs) in the region to correct the situation before it completely got out of hand.

Last year, 32 girls from colleges and secondary schools were expelled for being pregnant and 16 boys were dismissed for beer drinking, stealing, dagga-smoking and making girls pregnant.

Seven were expelled for drinking beer, four for dagga smoking, one for stealing and four others for causing pregnancies.

Of the total number of girls expelled for being pregnant, seven were from colleges.

"The Party and its Government does not condone mischief by students and I'm calling on PTAs in various schools to correct the situation.

"I wish to appeal to individual parents to teach and correct the activities of their children so that they don't spoil their future.

"There is no hope for those expelled students to enter the university because of their delinquent behaviour. The onus is on the parents in the province to check the behaviour of the children."

CSO: 5400/127

وأعلاها والمترازي فالتباه ويوهموا والمتكافر

ZIMBABWE

#### BRIEFS

MOUNT DARWIN CHOLERA OUTBREAK--HARARE--Cholera has broken out in the Mount Darwin area in the north-east of the country and two deaths from it have been confirmed and nine other suspected cases reported. Ministry of Health officials, however, have said that the situation was well under control. The deaths occurred at the weekend and none had been reported since. A senior official said his ministry had introduced measures to contain and eradicate the outbreak. The measures, he said, included propaylaxis treatment for residents and visitors into the area and roadblocks in affected areas with bowsers available for safe drinking water. [Text] [Johannesburg THE CITIZEN in English 4 May 84 p 17]

SWINE FEVER OUTBREAK—An outbreak of swine fever or Hog Cholera as it is commonly known, has been detected in the Orange Walk District. Swine fever, according to a GIS release, is caused by a virus which is deadly to pigs but doesn't affect humans. This virus is easily transmitted through infected pigs, infected pork and pork products and can also be transmitted by a person's clothing and on equipment and vehicles. The release adds that the Minister of Natural Resources, Florencio Marin, has assigned a Statutory Instrument enforcing Swine Fever regulations in Orange Walk District. This regulation prohibits the movement of pigs, pork and pork products into and out of the Orange Walk District. All must be penned or tied and not allowed to roam about and movements of swine in the district itself is prohibited.

[Text] [Belize City DISWEEK in English 6 Apr 84 p 5]

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FOOT AND MOUTH DISEASE--Concepcion, Patricio Carvajal, executive secretary of the Agriculture and Livestock Service [SAG] has reported that 5,000 head of cattle, hogs, sheep and goats were killed in Trapa Trapa District in Biobio Province in the past few days. The measure was adopted by the SAG after detecting cases of foot and mouth disease. Carvajal said that the problem was caused by the transportation of sick animals from Argentina.
[Summary] [Santiago LA TERCERA DE LA HORA in Spanish 15 Apr 84 p 10 PY]

#### CONCERN OVER ILLICIT IMPORT OF DISEASED ANIMALS EXPRESSED

Georgetown SUNDAY CHRONICLE in English 18 Mar 84 p 16

[Text] An official from the Ministry of Agriculture yesterday expressed concern about the practice of persons who bring animals into the country "without permission."

Principal Agriculture Officer Veterinary and Livestock Science, Dr Raj Raja yesterday said that many persons bring animals into the country and then seek permission to have them admitted. This often meant that animals which did not measure up to the health requirements (such as the animal being a carrier of diseases because of its last environment) had to be destroyed or returned to its 'home.'

He cited an example where 21 animals had to be destroyed last Tuesday because the importer had not sought prior permission from the division.

On investigation, the animals were found to be imported from a country abounding with cattle diseases. The ship with the animals was not allowed into Port Georgetown, but because the importer wanted his other cargo on the ship to be unloaded he had to request leave to destroy the animals.

Dr Raja noted that this situation could have been avoided if the importer had sought permission to bring in the animals.

He stressed that an import permit must be obtained before persons attempted to bring animals into the country.

People have to stop making last minute applications to bring in the animals, he warned.

DEFICIENCIES IN LIVESTOCK VACCINATION, POSSIBLE EPIDEMICS NOTED

Vientiane PASASON in Lao 4 Apr 84 pp 3, 4

[Orders And Advice On Animal Disease Prevention And Combating Epidemics in 1984]

[Text] To chiefs of agricultural, irrigation and agricultural co-op sections in all provinces throughout the country.

In 1983 the Ministry of Agriculture, Irrigation and Agricultural Co-ops saw that injections for animal disease prevention and combating epidemics for the veterinary section was better than in many past years. Our people and farmers have realized the significance of this work, so they are able to greatly reduce animal losses and to greatly expand their animal husbandry. The numbers of cattle, buffalo, pigs, poultry, etc. have increased according to the expected plan very well. However, vaccination of our livestock for disease prevention and for combating epidemics has not yet been carried out throughout the country, resulting in the continued spread of epidemics. In the past few months pasteurollosis and hoof-and-mouth disease have occurred, causing a number of animal deaths in Vientiane, Khammouan, Savannakhet, and Champassak Provinces.

In 1984 in the rainy season it is expected that cattle might contract pastuerellosis (Thammalakhokhai), hoof-and-mouth disease, and anthrax. Pigs can get cholera and [chicken pox]; poultry can have (Neukaseun), cholera, and other contagious colds. These diseases could continue to spread more extensively.

Because of this the Ministry of Agriculture, Irrigation and Agricultural Co-ops would like to suggest prevention techniques and to put an end to their spreading in a timely manner in order to decrease losses and take care of animals as follows:

- A. Provinces and Localities Where Diseases Have Not Yet Occurred
- 1. The veterinarian units in these localities must quickly vaccinate animals for disease prevention belonging to the people, stations, settlements, and agricultural co-ops in their own localities.
- 2. Vaccination for disease prevention [will] focus on three important areas: in locations where the diseases have previously occurred (in deserted or former disease sites); in localities where it is easy to come and go; and in localities where diseases have never occurred previously.

- 3. Vaccinations should be done on schedule twice a year. The first vaccination should be completed before the rainy season from April to May. The second vaccination should be done in early winter from October to November.
- B. Cases for the Sudden Occurrence of Diseases
- 1. Veterinarians must put their efforts into suppressing the diseases and attentively treat sick animals immediately.
- 2. Separate sick animals from healthy ones, and follow up with the treatment.
- 3. Carry out temporary schedules in an outbreak of animal diseases, e.g., do not transfer animals in and out of or let them leave the diseased area.
- 4. Follow the outbreak of epidemics closely.

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- 5. Animals that have died from diseases should be buried or cremated. Absolutely do not eat the meat of dead animals.
- 6. Make an announcement not to transfer any kind of animals in the area where an epidemic has broken out until the situation has returned to normal.
- 7. Urgently give injections for disease prevention in the nearby areas where the disease has not yet occurred.
- 8. Make a clear report to the Ministry of Agriculture, Irrigation, and Agricultural Co-ops giving every period for the outbreak of animal epidemics within the province.
- 9. Widely propagandize and warn the people so they will understand the danger concerning contagious diseases.
- 10. The duty of the Veterinian Department is to adopt a plan, medicines, and equipment, and to send animal disease suppression units to work in cooperation with different provinces if needed.

When there is an outbreak of animal epidemics this must be reported to the Ministry of Agriculture, Irrigation and Agricultural Co-ops or the Veterinarian Department on a regular basis at least once a week. Once there is success in suppressing an animal epidemic a report must be made summarizing and praising the section or individuals who have outstanding achievements in preventing and combating animal diseases.

After recieving this order and advice the provincial agriculture, irrigation, and agricultural co-op sections should work together in cooperation with local administrative committees to organize and carry this order out effectively and in a timely manner.

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FOWL PEST EFFECTS—Thousands of bags of chicken food suspected of spreading fowl pest are being sought at poultry farms throughout Britain. More than 400,000 birds have died since the disease broke out nearly a month ago. Ministry of Agriculture and poultry industry experts believe that the outbreak is so serious that vaccination of poultry flocks may have to be re-started after a gap of three years. The poultry industry has become particularly alarmed since Ministry experts traced on Thursday the source of the present outbreak of two bulk storage sheds at Liverpool Docks. The experts found that stocks of imported rice bran from Pakistan, an ingredient used in animal and poultry feeds, had been contaminated by wild pigeons. It is believed that the pigeons were infected by racing pigeons which were found last year to have a strain of the disease. The contaminated bran has been used as an ingredient in poultry foods by several companies. Supplies of the mixtures have been distributed throughout Britain. [Text] [London THE SUNDAY TELEGRAPH in English 25 Mar 84 p 3]

MYSTERY BANANA DISEASE—EAST Berbice—Several farms in the Ithaca-Gelderland area in Region Five (Mahaica/Berbice) have been hit by the outbreak of a strange disease which has destroyed large plots of plantains and bananas. This was disclosed Monday by Regional Chairman Cde Barakai Ally who said that samples from the farms have been sent to the Central Agricultural Station at Mon Repos for analysis. Cde Ally said the disease was discovered when farmers visited their farm recently and found the roots of suckers damaged and the trees falling to the ground. He pointed out that action would be taken to eradicate the disease from the area. He said the area might be put under fire or the fields might be flood-fallowed like in the sugar estates. [Text] [Georgetown GUYANA CHRONICLE in English 4 Apr 84 p 5]

LOCUSTS THREATEN TO DESTROY CROPS

Manila BULLETIN TODAY in English 27 Apr 84 p 15

[Article by Roy C. Sinfuego]

[Text] COTABATO CITY--Agricultural crops in Central Mindanao region are facing destruction if the massive locust infestation is not controlled.

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The infestation has reportedly destroyed more than 200 hectares of agricultural lands in at least six municipalities in North Cotabato, Sultan Kudarat, and Maguindanao.

Barangay officials said the spread of locust attack was caused by the failure of the Ministry of Agriculture to transport to its regional offices on time the much-needed pesticide, Aldras-2, reportedly the most effective in controlling locust infestation.

An acute shortage of field locust scouters and inadequate chemical, vehicles, and logistical support were other problems cited.

Sources said only 29 locust scouters are doing field work in the three provinces. Due to lack of chemicals to spray to kill the locusts, the locust scouters and farmers have resorted to catching locusts with their hands.

The locust scouters need at least 160 liters of chemicals and insecticides.

A report said MAR started its locust extermination drive in May, 1983.

LOCUSTS PRESENCE PROBED-THE Ministry of Agriculture and Water Development is investigating the reported presence in the country of locusts which are destroying crops. Permanent secretary in the ministry, Mr Namukolo Mukutu, said yesterday that a sample of insects of similar appearance being sold at markets was being studied by experts to determine whether they were locusts. So far, checks with appropriate authorities on the matter, including the International Red Locust Control Organisation (IRLCO) based in Mbala, had revealed no presence of the dreaded insect in the country. The ministry appealed to members of the public suspecting the presence of locusts in their area to report the matter to the appropriate authorities without delay. It was reported this week that locusts had become an ideal delicacy in Zambian homes and were fetching a high price in Lusaka. A plateful of the delicacy was selling for as much as 60n and those who had sampled talked highly of the taste and recommended instand delivery. Vendors said they obtained the locusts from wholesalers at Soweto market, where they were brought in bags from the Western Province. The red locusts caused havoc in 1930 when most of Africa south of the equator was devastated. Meanwhile, the ministry has warned all farmers to report the presence of red locusts anywhere to the nearest agricultural The officers must in turn report the matter immediately to the local agricultural department or the ministry headquarters. Mr Mukutu said locust was a vicious pest which should be reported to the relevant authorities on sight. Mr Mukutu has meanwhile denied that butter was being distributed to famine-stricken areas in Gwembe as part of a food relief programme. What was being distributed was edible fat used for cooking. Under the World Food Programme, relief food aid to some parts of Gwembe consists of maize, edible fat and dried skim milk powder. These commodities were chosen because they were acceptable to the local people and were of high nutritional value. could therefore combat malnutrition and provide a balanced diet. [Text] [Lusaka TIMES OF ZAMBIA in English 18 Apr 84 p 5]

FINCHES DAMAGE CROPS--VRYHEID. -- A plague of finches has caused damage estimated at R200 000 to the sorghum crops in the Blood River and De Jagers Drift areas in Utrecht district. Farmers in the areas have said large tracts of land had been destroyed by the birds, which have apparently been flying up to 20 km a night to plunder the lands. It is thought the birds come from drought stricken areas in other provinces. [Text] [Johannesburg THE CITIZEN in English 4 May 84 p 13]